

**IN THE CLAIMS:**

1 | 1. (Currently amended) A leak point wetness ~~sensor~~detector for urological investi-  
2 | gations comprising:

3 |                   an instrument body having a passage therethrough to pass a catheter,  
4 | which catheter is intended for insertion into the bladder through the urethra;

5 |                   a receptacle in said instrument body so arranged and disposed as to receive  
6 | liquid which leaks from the urethra past the inserted catheter;

7 |                   a temperature sensitive detector sensor mounted to said instrument body  
8 | where it will be contacted by said leaked liquid, said detector sensor being responsive to  
9 | the temperature of said liquid and adapted to provide a signal output respective to said  
10 | temperature;

11 |                   a ~~circuit adapted~~signal generator to generate and provide a reference out-  
12 | put signal simulative of a selected temperature, where the selected temperature is below  
13 | that of an anticipated temperature of said leaked liquid, and~~said circuit generating said~~  
14 | ~~reference output independent of ambient temperature~~ where the output signal of the se-  
15 | lected temperature remains constant and is independent of ambient temperature; and

16 |                   a comparator responsive to the difference between said outputs to detect  
17 | and inform when the signal output sufficiently exceeds said reference output.

1     2.     (Previously Presented) The sensor according to claim 1 in which drainage chan-  
2     nels extend from said receptacle to the outside of said body to drain liquid from the re-  
3     ceptacle.

1     3.     (Previously Presented) The sensor according to claim 1 in which recorder means  
2     records related data when wetness is detected.

1     4.     (Currently amended) A leak point wetness ~~sensor-detector~~ for urological investi-  
2     gations comprising:

3                 an instrument body having a passage therethrough to pass a catheter,  
4     which catheter is intended for insertion into the bladder through the urethra;

5                 a receptacle in said instrument body so arranged and disposed as to receive  
6     liquid which leaks from the urethra past the inserted catheter;

7                 a single temperature sensitive detector sensor mounted to said instrument  
8     body where it will be contacted by said leaked liquid, said detector sensor being respon-  
9     sive to the temperature of said liquid and adapted to provide a signal output respective to  
10    said temperature;

11                a rate of change detector ~~circuit adapted~~ to detect a rate of change in the  
12    signal output from said single temperature sensitive detector sensor, said detected rate of  
13    change corresponding to a rate of change in temperature at said detector sensor.

1     5.     (Previously Presented) The sensor according to claim 1, wherein said compara-  
2     tor outputs a signal indicating that liquid has leaked from said urethra.

1     6.     (Currently Amended) The sensor according to claim 4, wherein said rate of  
2     change detector circuit generates a signal indicating that liquid has leaked from said ure-  
3     thra.

1     7.     (Currently Amended) The sensor according to claim 4, wherein said rate of  
2     change detector circuit differentiates said signal output from said temperature sensitive  
3     detector sensor.

1     8.     (Currently Amended) A leak point wetness device for urological investigations  
2     comprising:

3             an instrument body having a passage therethrough to pass a catheter,

4     which catheter is intended for insertion into the bladder through the urethra;

5             a temperature sensitive detector sensor mounted to said instrument body

6     where it will be contacted by liquid which leaks from the urethra past the inserted cathe-

7     ter, said detector sensor being responsive to the temperature of said liquid and adapted to

8     provide a signal output respective to said temperature;

9 | a ~~circuit-adapted~~signal generator to generate and provide a reference out-  
10 | put simulative of a selected temperature below that of an anticipated temperature of said  
11 | leaked liquid, said ~~circuit~~signal generator generating said reference output independent  
12 | of ambient temperature; and  
13 | a comparator responsive to the difference between said outputs to detect  
14 | and inform when the signal output from said detector sensor sufficiently changes relative  
15 | to said reference output.

1 | 9. (Currently Amended) A leak point wetness device for urological investigations  
2 | comprising:

3 | an instrument body having a passage therethrough to pass a catheter,  
4 | which catheter is intended for insertion into the bladder through the urethra;

5 | a single temperature sensitive detector sensor mounted to said instrument  
6 | body where it will be contacted by liquid which leaks from the urethra past the inserted  
7 | catheter, said detector sensor being responsive to the temperature of said liquid and  
8 | adapted to provide a signal output respective to said temperature; and

9 | a comparator to detect~~means for detecting~~ when the signal output from  
10 | said single detector sensor sufficiently changes relative to a reference signal that is inde-  
11 | pendent of ambient temperature and simulative of a selected temperature below that of an  
12 | anticipated temperature of said leaked liquid.

1 | 10. (Previously Presented) The device according to claim 9, further comprising:

2 means for signaling the event of a leakage when the signal output from  
3 said detector sensor sufficiently changes relative to said reference signal.

1 11. (Currently Amended) The device according to claim 9, further comprising:

2 | a signal generator ~~means for~~ generating said reference signal that is inde-  
3 pendent of ambient temperature and simulative of a selected temperature below that of an  
4 anticipated temperature of said leaked liquid.

1 12. (Currently Amended) A leak point wetness device for urological investigations  
2 comprising:

3 an instrument body having a passage therethrough to pass a catheter,  
4 which catheter is intended for insertion into the bladder through the urethra;

5 | a single temperature sensitive detector sensor mounted to said instrument  
6 body where it will be contacted by liquid which leaks from the urethra past the inserted  
7 catheter, said detector sensor being responsive to the temperature of said liquid and  
8 adapted to provide a signal output respective to said temperature; and

9 | a rate of change detector ~~circuit adapted~~ to detect a rate of change in the  
10 signal output from said single temperature sensitive detector sensor, said detected rate of  
11 change corresponding to a rate of change in temperature at said single detector sensor.

Please add new claims 13 *et al.*

1 13. (New) The detector according to claim 4, further comprising a recorder that records a  
2 signal when the rate of change detector detects the single temperature sensor is greater  
3 then a preset threshold.

1 14. (New) The detector according to claim 4, further comprising a signal when the rate of  
2 change detector detects the single temperature sensor is greater then a preset threshold.

1 15. (New) A leak point wetness device for urological investigations comprising:  
2 an instrument body having a passage therethrough to pass a catheter, which cathe-  
3 ter is intended for insertion into the bladder through the urethra;  
4 a single temperature sensitive detector sensor mounted to said instrument body  
5 where it will be contacted by liquid which leaks from the urethra past the inserted cathe-  
6 ter, said detector sensor being responsive to the temperature of said liquid and adapted to  
7 provide a signal output respective to said temperature;  
8 a signal generator to generate and provide a reference output simulative of a se-  
9 lected temperature below that of an anticipated temperature of said leaked liquid; and  
10 a comparator responsive to the difference between said output from signal genera-  
11 tor and said output from the single temperature sensitive detector sensor, where the com-  
12 parator detects and informs when the signal output from said single detector sensor suffi-  
13 ciently changes relative to said reference output.

1    16. (New) The device according to claim 15, further comprising:  
2           a recorder that stores when the comparator detects when the signal output from  
3    said single detector sensor sufficiently changes relative to said reference output.

1    17. (New) The device according to claim 15, wherein said reference output independent  
2    of ambient temperature.

1    18. (New) The device according to claim 15, wherein said reference output independent  
2    of environmental conditions.